

REMARKS

Favorable reconsideration of this application, in view of the following comments, is respectfully requested.

Claims 1-21 are pending in this application. Claims 1-21 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 6,160,576 to Higuchi et al. (herein "Higuchi") in view of U.S. patent 6,330,038 to Johnson.

Addressing the above-noted rejection of claims 1-21 over Higuchi in view of Johnson, that rejection is traversed by the present response.

Before addressing the above-noted rejection in detail, it is believed that a brief review of the present invention would be helpful.

The applicant of the present invention recognized that image processing apparatuses include several types of adjustments to image quality, such as adjusting a sharpness, as a non-limiting example. The applicant of the present invention also recognized that when sharpness is adjusted other image qualities, such as contrast and brightness of an image, are also affected.

Accordingly, the applicant of the present invention devised the claimed invention to reduce the influence that an image quality adjustment makes upon a contrast or brightness of an image. To achieve the above operation, the claimed image display device of independent Claim 1 allows a user to *directly* set an image quality adjustment that is not a contrast or brightness adjustment of an image. In one non-limiting example, and as recited in dependent Claim 2, that image quality adjustment may be a sharpness adjustment. As noted above, the applicant of the present invention recognized that an image quality adjustment that excludes contrast and brightness adjustment may adversely affect the contrast or brightness. To address that drawback, independent Claim 1 further requires an image processing section "to

perform contrast compensation *to maintain a brightness* at a center of a specific color region larger than a predetermined size within the image displayed by the display device, regardless of the setting of the image quality adjustment” (emphasis added). That is, according to such a feature as recited in independent Claim 1, a brightness in a specific region is *maintained* even when the image quality adjustment is made. In the specific non-limiting example noted above, when a sharpness adjustment is made, a brightness is maintained at a center of a specific color region that exceeds a predetermined size. Such subject matter is also shown for example in Figures 5(a)-5(d) in the present specification. It is also noted that the other independent Claims 6, 9, 12, 14, and 19 recite similar features as noted above with respect to independent Claim 1.

The outstanding rejection recognizes that Higuchi does not disclose that the setting section (Fig. 1, item 14) is configured to allow a user to directly set image quality adjustment excluding contrast and brightness adjustments of the image.¹

To overcome the recognized deficiencies in Higuchi, the outstanding Office Action now cites the teachings in Johnson. The outstanding Office Action specifically states:

Johnson discloses a video sharpness control device for a display. Johnson discloses in Fig. 7A in col. 9, lines 29-43, where the sharpness may be set by the user separately from the brightness and contrast, so that the brightness can be maintained. It would have been obvious to one of ordinary skill in the art to combine the systems of Higuchi et al with that of Johnson as they both disclose displays with setting controls. The system of Johnson is advantageous as it enhances the video image by allowing the user to set controls separately.²

The above-noted grounds for rejection is traversed in the following aspects. First, Johnson in fact does not disclose the claimed features as relied upon in the Office Action. Further, even combining the teachings in Johnson with those of Higuchi would not meet the

¹ Office Action of July 30, 2003, page 3, lines 7-9.

² Office Action of July 30, 2003, page 3, lines 10-15.

claim limitations. Also, no motivation exists to combine the teachings in Johnson and Higuchi.

The above-noted basis for the outstanding rejection cites Johnson at col. 9, lines 29-43. At that portion Johnson states:

FIG. 7A illustrates an exemplary video image 10 that is composed primarily of the broadcast television signal (black and white bars 12 and 14 in this example) and a graphical user applet 200. Using a remote control or the control panel 46, a viewer may cause the applet 200 to appear on the video image 10 so that the viewer can adjust various characteristics of the video image 10. For instance, the applet 200 may include user adjustable "slide controls," such as a brightness control 200, a contrast control 204, a tint control 206, and a sharpness control 208. As illustrated in the enlarged view of FIG. 7B, the sharpness control 208 may include a "slide" 210 that may be placed at any one of eight different settings 212a, 212b, 212c, 212d, 212e, 212f, 212g, and 212h.

The above-noted passage in Johnson simply does not teach or suggest the claimed features. The above-noted portion in Johnson merely discloses conventional controls such as a brightness control, a contrast control, a tint control, and a sharpness control.

As noted above, in one feature in the claimed invention when an image adjustment is made a brightness can be maintained at a center of a specific color region that exceeds a predetermined size. That is, in the claimed invention, an image adjustment excluding contrast and brightness can result in the change of a brightness control. Such a feature clearly is neither taught nor suggested, nor even eluded to, in Johnson. Johnson discloses a tint control 206 and a sharpness control 208. However, Johnson does not disclose or suggest that utilizing the tint control 206 or the sharpness control 208 would have any impact on maintaining a brightness.

Stated another way, the claims clearly recite directly setting an image quality excluding contrast and brightness adjustments. The outstanding rejection appears to indicate

that Johnson meets such limitations because Johnson discloses a tint control 206 and a sharpness control 208.

However, the claims require more than merely directly setting controls besides brightness and contrast. The claims recite that those other controls that adjust image quality (excluding contrast and brightness) perform a contrast compensation to maintain a brightness. For Johnson to meet the claim limitations, Johnson would have to disclose that one of the tint control 206 or sharpness control 208, when set by a user, would result in performing a contrast compensation to maintain a brightness. Johnson clearly fails to teach or suggest such subject matter and Johnson does not in fact teach or suggest operating in such a manner.

In such ways, the teachings in Johnson do not meet the features relied upon in the outstanding Office Action and do not meet the claim limitations. As a result, no combination of teachings of Johnson in view of Higuchi fully meets the claim limitations.

Further, Applicants note that clearly there could be no incentive or motivation to combine the teachings in Higuchi and Johnson in a manner to meet the claim limitations.

As noted above, the applicant of the present invention recognized that, as an example, when sharpness is adjusted other image qualities, such as contrast and brightness of an image, are also effected. To address that recognition, the claimed invention performs contrast compensation to maintain a brightness at a center of a specific region when an image quality adjustment excluding contrast and brightness adjustments is made. Such drawbacks recognized in the prior art are not even addressed in any of the applied art.

Higuchi is not directed to a device that even recognizes the problems that the present invention recognizes and addresses. In that respect it is noted that it is only the applicant who recognized the problem discussed above in that certain image quality adjustments adversely affect contrast and brightness. As noted in MPEP § 2141.02 discovering a source/cause of a problem must be considered, which has not been done in the outstanding Office Action.

Higuchi is directed to a completely different problem than that of the claimed invention. Higuchi is directed to a device for a navigation system installed in a vehicle that can adjust the display of a map depending on an age of an observer. To meet that objective, Higuchi discloses that different color compensation values can be utilized based on a set age.

In such ways, Higuchi clearly does not even recognize, much less address, the same problem as noted above that the present invention recognizes and solves.

Further, Johnson is directed to a device that can enhance sharpness of a video image. Such a teaching in Johnson is unrelated to performing image compensations based on age-related characteristics as in Higuchi. Johnson also teaches enhancing the luminance signal portion of a television signal, which also is unrelated to the image compensation device based on age-related characteristics as in Higuchi as Higuchi does not even indicate any type of luminance signal portion of the television signal being enhanced based on the age-related characteristics.

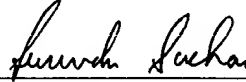
In such ways, the teachings in Johnson are not even properly combinable with the teachings in Higuchi.

In view of these foregoing comments, each of the pending claims 1-21 are believed to clearly distinguish over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

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